

**Indiana Department of Correction
2007 Researched Cost of Global Positioning Systems
Submitted to the Legislative Council**

Introduction

Pursuant to state law, the Indiana Department of Correction (IDOC) is required to provide the legislative council a cost analysis associated with establishing Global Positioning Satellite (GPS) monitoring for lifetime parole and a report on the recidivism of lifetime parolees. An additional requirement of this report contains a proposal to make lifetime parole and GPS monitoring more effective and less expensive. To frame all information in the correct context, this report will review the recent changes to IDOC sex offender treatment to offer a clearer picture of what programming offenders will be engaged in prior to release.

Legislative Action regarding Sex Offenders

Prior to 2006, the IDOC had no ability to require sex offenders participate in treatment. This meant offenders could be incarcerated for a sex crime, receive educational credit, but never receive treatment for the offense that sent them to the Department. Now as a result of changes in the law, those convicted a sex crime must receive sex offender training before receiving credit time for completion of any educational or substance abuse programs. The IDOC currently has 3500 sex offenders incarcerated; prior to the change in law the department only had 250-300 sex offenders volunteering for sex offender treatment. Now the IDOC has 1260 sex offenders enrolled in Sex Offender Management Monitoring (SOMM) treatment programming.

I. Recent Changes to Indiana Department of Correction Sex Offender Treatment

- a. Facility-based Sex Offender treatment is provided to all Sex Offenders at Plainfield Correctional Facility, Miami Correctional Facility, Rockville Correctional Facility, and Pendleton Juvenile Correctional Facility. The intensity and duration of treatment is based on an actuarial assessment of the Sex Offender's risk for sexual offending. Treatment is delivered via group therapy and focuses on deviant sexual arousal, cycles (patterns) of sexual offending, cognitive distortions (thinking errors), social skills, empathy development, and relapse prevention.
- b. Upon release to parole supervision, Sex Offenders are immediately enrolled in community-based Sex Offender treatment, scheduled for polygraph exams at least every six months, and supervised closely by specially trained parole agents. A Sex Offender Management and Monitor District Coordinator arranges a monthly "containment team" meeting for each paroled Sex Offender.

- c. Recent developments (since July '06) include the transition to mandatory treatment for all Sex Offenders, the overhaul of the program for juvenile Sex Offenders at Pendleton Juvenile Correctional Facility, the transfer of female Sex Offenders to Rockville Correctional Facility, the enhancement of reentry services (housing, employment, social support systems) for Sex Offenders, and the introduction of polygraph examination into Plainfield Correctional Facility and Miami Correctional Facility.
- d. The most recent initiative, is the establishment of a facility-wide Therapeutic Community at Plainfield Correctional Facility, which opened on January 1, 2008. All offenders and staff will be involved in the treatment process at that facility. Such an initiative is the first of its kind in the nation.

IDOC GPS Population and Costs Estimates

During the 2006 General Assembly session, the legislature passed laws in which the Department has interpreted to apply the GPS requirement for sexually violent predators prospectively to those offenders who are soon to be released and those who commit new sexual offenses which meet the statutory criteria. This interpretation provides the Department the ability to gauge the data from its GPS pilot program currently in use. It further allows the Department latitude to build towards its fiscal projections of the cost associated with GPS monitoring. The Department currently has 1 sexually violent predator required to be on lifetime GPS monitoring at the current rate of \$17 per day per offender or \$6205 per year. Both of these interpretations would have to add the cost of additional staff and overtime which is often necessary to accommodate shifts in workload and these must be considered as part of the overall cost of implementing GPS. This cost is based upon third-party contracting for GPS monitoring while Parole would be required to supervise and manage the offender. Cost would be significantly higher if the Department would continuously staff, 24 hour-7days a week-365 days a year, an operation for monitoring and supervising. Some of the other additional costs include the cost for purchasing or leasing equipment, technicians for installation and repair, facilities, software updates and support.

The Department's recommendation would be that we focus on those sexually violent predator parolees who score high on a risk assessment model and immediately link them to GPS. These individuals will assist the data collection of our pilot project. Another suggestion would be to clarify the intent of the 2006 legislation to apply prospectively to those individuals who have committed crimes after June 30, 2006 and offenders currently incarcerated in the Department which fit the statutory definition of sexually violent predator.

Next we will review the information gathered thus far regarding the IDOC Pilot Project and of the overall observations made by staff deploying this technology for the Department.

IDOC Pilot Project – GPS Monitoring

The Indiana Department of Correction (IDOC) was awarded a grant from the Indiana Criminal Justice Institute in the amount of \$292,000 for the implementation of a pilot project that would track paroled sex offenders' movement in order to verify exclusion zone compliance through the use of GPS monitoring.

GPS technological services were contracted with a third-party vendor. This vendor uses an active tracking system, which has the capabilities to provide the location of an offender at any given time. This active tracking system uses cell phone technology, is accessible through the internet, and requires no household phone line for the offender. The contract states that the IDOC will be charged \$8.00 per day, per offender, for each active unit. The vendor submits monthly invoices for each month's activity.

The service contract with the vendor establishes the use of their equipment and software for active monitoring. The vendor provided an initial training session regarding the operation and use of their system, with additional trainings available at a cost. The vendor is also responsible for providing a reasonable amount of supplies, such as batteries, latches, and straps, for active monitoring and a reasonable number of installation kits. The contract states that the IDOC is responsible for replacing, at cost, any lost or broken units.

Upon receipt of the units, IDOC subcontracted with St. Joseph and Vanderburgh counties who were responsible for the following items:

- Approving and denying offenders
- Accepting and hooking up equipment
- Training parolees on appropriate use of equipment
- Retrieving equipment from parolees at the end of their participation
- Conducting a risk/needs assessment at the beginning and end of the program implementation
- Entering exclusion zone data into the software and monitoring all enrolled offenders

The IDOC will reimburse the participating counties \$9.00 per offender, per day, for their participation in the pilot project.

St. Joseph GPS Review

In St. Joseph County the average daily count of offenders being monitored on GPS is 20. St. Joseph County has responded that GPS has been a good tool to assist in tracking offenders. The technology allows greater enforcement of curfew, as well as exclusion and inclusion zones. The GPS system can locate an offender immediately and display instructions by use of text messages. Usually an agent will contact a parolee by paging the GPS device providing instructions to the parolee to call into the agent. The most important benefit that GPS has provided to agents is based on its accuracy to locate offenders. For example, if an offender is absent from a required meeting the agent has the ability to verify their whereabouts. A function such as this becomes important when determining whether an offender has violated his parole by being in an unauthorized area

or if the parolee is being accused of an additional crime but his GPS device provides evidence which indicates otherwise.

The St. Joseph pilot project included some concerns about the GPS monitoring which included the amount of time consumed by agents monitoring offenders. The agent assigned to GPS monitoring typically spends an hour or more dealing with GPS parolees per day. In addition, agents have received “signal lost” alerts in many of the steel structured factories while offenders are at work. Signal lost alerts make it difficult to send messages to parolees during work hours. The frequency of GPS alerts often causes agents to work during non-work hours (ie. evenings, weekends and holidays). Other variables such as inclement weather can affect the GPS signal and the computer connection speed will determine the speed of GPS downloads.

St. Joseph has indicated that a specialized caseload of sex offenders on GPS should be around 35. An agent could handle this type of GPS monitoring, provided the vendor handle the actual day-to-day monitoring. An arrangement such as this would allow the agent to handle the case management/supervision.

Vanderburgh GPS Review

Similar to St. Joseph County, Vanderburgh has found value in its ability to have agents use laptops with wireless cards to access the GPS monitoring program. In addition to agents monitoring parolees, local community corrections sex offender management and monitoring agents can observe the movement of parolees from the Community Corrections Complex (24 hours a day). Agents in Vanderburgh have been able to use GPS technology to impose intermediate sanctions such as curfews. The Department realizes a savings when successful intermediate sanctions are applied. The diversion of sanctioned parolees lower the amount of offenders being returned to Department on a revocation of a parole violation.

Listed below is a snapshot of the some of the alert readings from the pilot project.

<u>Alert</u>	<u>Total Alerts</u>
Did Not Acknowledge	543
Exclusion Zone Enter Alert	3028
Exclusion Zone Leave Alert	3023
Fail to Dock	13
Inclusion Zone Enter Alert	2833
Inclusion Zone Leave Alert	2823
Master Zone Enter Alert	284
Master Zone Leave Alert	219
Phone Loss	10
Phone Restore	11
Power Loss	8
Power Restore	8
Proximity Tamper	110
Strap Tamper	120
Transmitter Not Found	0
Transmitter Out of Range	1413
Unauthorized Enter	20
Unauthorized Leave	21

Negatives of GPS Monitoring

While GPS monitoring has been utilized as an effective tool in tracking offenders and maintaining offender accountability, there are some negative aspects that are inherent in utilizing this type of technology.

- Mandating use could defer the burden of responsibility to police who may be inundated with false alarms and expending valuable manpower and resources to respond.
- Fiscal Impact - Costs per day, per offender, for use of GPS ranges from \$15.00 to \$22.00.
- Ankle bracelets can be removed as they are not designed to be permanent.
- Creation of a false sense of security because GPS monitoring does not prevent crimes from happening, but merely acts as a deterrent.
- Studies find similar results between GPS monitoring and traditional electronic monitoring in the likelihood of offenders to violate conditions.
- Monitoring homeless offenders – Where do they charge their batteries and plug in their base station devices?

The U.S. Government's GPS system has been designed to be as accurate as possible. However, there are still errors. Added together, these errors may cause a deviation of +/- 50 to 100 meters from the actual GPS receiver position. Civilian GPS

receivers have potential position errors due to the result of the accumulated errors due primarily to some of the following sources:

- **Offender cooperation / interference** – The more an offender provides the receiver with a clear view to the sky the less chance there will be for GPS errors and inaccuracy. In general, offenders have been known to have little regard for placement of tracking units and do not always provide optimal working conditions.
 - When not traveling in a vehicle, wear the tracking unit in its carrying case on the outer most layer of clothing.
 - While traveling in a vehicle, place the tracking unit on the dashboard or in the window.
 - It is imperative that the offender ensures that when leaving a building they obtain a GPS signal prior to leaving the area.

Common causes of poor GPS reception

- **Number of satellites visible** – The more satellites the receiver can “see”, the better the accuracy. Buildings, terrain, electronic interference, or sometimes even dense foliage can block signal reception causing position errors or possibly no position reading at all. GPS units will not work indoors (typically), underwater, or underground.
- **Signal multi-path** – occurs when the GPS signal is reflected off objects such as tall buildings or large rock surfaces before it reaches the receiver.
- **Atmospheric delays (also known as ionosphere and troposphere delays)** – The satellite signal slows as it passes through the atmosphere. The system uses a built in “model” that calculates an average, but not an exact, amount of delay.

Conclusion

While GPS monitoring serves as a useful tool for parole agents to know the locations of their particular parolees, some of the drawbacks of being too staff intensive, loss of coverage and faulty alerts may prevent the GPS technology from completing its intended task. As technology evolves, the probability of faulty alerts and loss of signal coverage will occur with less frequency. In addition, the cost of this technology should decrease as capabilities increase. However, as more individuals are required to be monitored by GPS, the cost for additional staffing and overtime will increase for the Department. As for now, the ability to actually respond to an exclusion violation within a time frame to prevent further victimization is unlikely. Correctly functioning units will offer prosecutors another evidentiary component to assist in obtaining future convictions. A bigger question that remains is whether the ends justify the means if treatment seems to be a greater deterrent towards the change of behavior for the sexually violent predator.